



BOROUGH OF MARGATE.

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1913.

Margate :

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1914.

BOROUGH OF MARGATE.

ALDERMAN WILLIAM BOOTH REEVE, MAYOR.

Sanitary and Sewerage Committee:

ALDERMAN HUGHES, CHAIRMAN.

„ EVANS.

„ HERMITAGE.

COUNCILLOR GOODBAN.

„ HOUGHTON.

„ HANNA.

„ ROWE.

„ RICHARDS.

„ WALES.

„ WATSON.

Medical Officer of Health:

ROWAN McCOMBE.

Sanitary Inspector:

ERNEST RIDSDALE.

Assistant Sanitary Inspectors:

J. M. BROWN.

J. D. RATTRAY.

Health Visitor:

MISS MAY.

Meteorologist:

JOHN STOKES.

Town Clerk:

EDWARD BROOKE.

*SUMMARY OF STATISTICS
AND INFORMATION RELATING TO THE
BOROUGH OF MARGATE.*

Area of Borough.

2961 Acres (including 386 Acres of Foreshore).

Geological Formation. Subsoil, Chalk.

Population.

Census of March, 1911—27,086.

Estimated at the end of 1913—28,000.

Estimated maximum population during season—100,000.

Water Supply.

Constant service from deep wells at Wingham, 14 miles from Margate.

Sewerage Disposal.

By water carriage, outfall into the deep sea two miles east of Margate Jetty.

Number of Inhabited Houses. (1913) 6,376 (approximately).

Rateable Value. £204,311.

Rates. General District Rate, 4/4. Poor Rate, 2/11 (includes County Rate, 7½d., and Borough Rate, 1/2). Total Rates, 7/3.

Birth Rate. 16.1 per 1,000 in 1913.

Infantile Mortality. (1913) 81 per 1,000 births.

Death Rate. (Corrected). 10.3 per 1,000.

Zymotic Death Rate. (1913) 0.4 per 1,000 (excluding Diarrhœa, 0.1 per 1,000).

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*To His Worship the Mayor, Aldermen and Councillors
of the Borough of Margate.*

GENTLEMEN,

I have the honour of submitting to you the Annual Report on the Health of the Borough for 1913.

As I was only appointed your Medical Officer at the beginning of this year, the Report must obviously be rather concise and bear on actual facts; in this connection I have followed the schemes laid down by the Local Government Board.

It is very satisfactory to report a decrease in the Death Rate; also a decrease in the Zymotic Death Rate and Infantile Mortality. The two latter indicate to a large extent the healthiness of the Borough with regard to preventable disease.

I should like to express my indebtedness to Miss Thornton (daughter of your late Medical Officer) for her kindly assistance in preparing the figures and other details for the Report.

I am, Gentlemen,

Your obedient Servant,

ROWAN McCOMBE,

May 6th, 1914.

Medical Officer of Health.

*THE FOLLOWING BYE-LAWS AND REGULATIONS ARE
IN FORCE IN THE BOROUGH OF MARGATE.*

Common Lodging Houses (P.H. Act, 1875, s. 80).
Houses Let in Lodgings (P.H. Act, 1875, s. 90).
Cleansing, etc., and Removal of Refuse (P.H. Act, 1875, s. 44).
Tents, Vans, Sheds, etc. (H.W.C. Act, 1885, s. 9 [2]).
Public Mortuaries (P.H. Act, 1875, s. 141).
Slaughter Houses (P.H. Act, 1875, s. 169).
Prevention of Nuisances (P.H. Act, 1875, s. 44).
Keeping of Animals (P.H. Act, 1875, s. 44).
New Streets and Buildings (P.H. Act, 1875, s. 157 and P.H.A.A.
Act, 1899, s. 23).
Removal of Offensive Matters and House Refuse (P.H.A.A. Act,
1890, s. 26).
Public Conveniences (P.H.A.A. Act, 1890, s. 20).
Regulations under Dairies, Cowsheds and Milkshops Order, 1885.

*THE FOLLOWING ACTS HAVE BEEN ADOPTED
IN THE BOROUGH.*

Infectious Disease (Prevention) Act, 1890.
Public Health Acts Amendment Act, 1890.
Public Health Acts Amendment Act, 1890.
Notification of Births Act, 1907.

PART 1.

General Information on the Sanitary Features of the Borough.

Physical The Borough of Margate extends over an area of 2,961 acres, which includes 468 acres of foreshore.

Characteristics. The town follows the coast line, which faces the North-East, North and North-West. Situated at the N.E. corner of Kent, it is exposed to all sea-breezes from all quarters except the West. The sub-soil is chalk, and the town is divided by two valleys, viz., the Dane and Tivoli Valleys. Owing to these valleys and the general undulations of the ground levels, the town is exceptionally favoured as regards surface drainage; it is a notable fact that even after the heaviest rainfall the roads become dry in a very short period of time. The amount of vegetation in the town and neighbourhood is very limited. The streets, except in the lower and older parts of the town, are well laid out, and there are numerous large open spaces; the sea-breezes are thus able to circulate freely in all parts of the town. To the above factors may be attributed the noted dryness of the climate of Margate. It is not improbable that the large area of foreshore (468 acres), with its sand and seaweed-covered rocks, may also materially add to the salubrity of the air when the wind sets in from the sea.

Social Conditions. Owing to the fact that Margate is a Health and Pleasure Resort, the occupations of the great majority of the inhabitants are directly or indirectly associated with the catering for visitors to the town. A large proportion of the houses of all sizes are used in the season as lodging-houses or boarding-houses. In many of the smaller houses there is, unfortunately, during five or six weeks in the year, a tendency to overcrowding; the ill effects of this are probably to some extent mitigated by the bracing air, and the fact that during the greater part of the day the visitors are enjoying themselves on the sea front. It is unquestionable, however, that the health of young Margate children suffers owing to the inability of their parents to give them proper attention during the rush of the season. Outside the building trades there are no special industries of note. Rents of all classes of houses are comparatively high, and on the whole these houses are well constructed and have ample air-space. There is a great demand among the working classes for small cottages, and it will be a good thing for the health of the rising generation when it is possible to provide cottages at such a rent as will enable work people to live in them without the need of adding to their income by letting lodgings in the season. I am informed that the Guardians issued out-relief to the amount of £855 3s. 2d.

Public Charities. The following charities provide assistance for necessitous people in the Borough :—The Margate Soup Kitchen; The Halfpenny Dinner Fund; The Philanthropic Institution (provides 10,000 1/- tickets for food and fuel besides money grants); Dr. Peete's Charity (provides about 100 Annuities of from £18 to £12); Kidman's Bounty; The Lying-in-Charity for the assistance of poor women in their confinements; Draper's Almshouses (38 female inmates); The Alexandra Homes for Aged Parishioners (40 houses); The Parish Yard Almshouses (for 19 female inmates); The Margate Creche (admissions average about 3,000 per annum) and the Cottage Hospital (for cases of accident and acute disease 30 beds). The Royal Sea Bathing Hospital 150 beds, a National Institution, chiefly for cases of Surgical Tuberculosis, but available for Local Patients.

The New Supply of Water from Wingham, which **Water Supply.** was opened in August, 1903, has proved to be a great boon to the district, and maintains its high reputation both as to quantity and quality. The old supply from local sources had, by overpumping, become so impregnated with salt (as much as 170 grains to the gallon), and it was a source of universal complaint from visitors. The new source is situated in the district of Wingham, 14 miles from Margate in a south-westerly direction. The catchment area extends over about 20 square miles of open agricultural country, and the water is filtered through the chalk for some 80 to 250 feet till it reaches the adits. This situation was selected by the Engineer, Mr. Albert Latham, on account of its isolated position and consequent freedom from any possible source of pollution. The site was approved of by such eminent authorities as Mr. Charles Hawksley, Mr. Edward Eaton, and Mr. William Whitaker. The cost of the undertaking was £120,000, including the supply to 21 parishes in the neighbourhood of the works and along the line of main to Margate.

The length of the main laid in connection with this scheme exceeds 100 miles; the water is pumped direct into the mains. A reservoir capable of holding 1,000,000 gallons has been erected at Flete, 2½ miles from Margate, at a height of 177 feet above ordnance datum; this reservoir, in addition to containing a reserve supply in case of a temporary breakdown, also forms a balancing head, and from it we draw the water when not pumping, the height of the reservoir enabling the water to flow by gravitation to the highest points in the town. The original rest level of the water in the well at the Wingham Pumping Station was about 34 feet above ordnance datum before pumping operations commenced.

The total length of the adit originally proposed and shown on the Parliamentary plan was 9,300 feet, of which it has at present only been necessary to drive 3,650 feet, the supply obtained from this length of adit being found to be more than equal to any likely demand in the early future. The amount of water pumped from the adits when driving was stopped was 2¾ million gallons per diem.

At the present time the Borough Engineer, Mr. E. A. Borg, is engaged upon the erection of a new pumping station at Wingham. The new machinery being installed includes a pumping engine

capable of delivering four million gallons of water to Margate in 24 hours, also high service pump to deliver 250,000 gallons to the outlying high level parishes. The cost of the above work is £17,000.

At the same time a new reservoir is being built at Flete (about two miles from Margate) to hold two million gallons of water.

The following Report by the Borough Engineer will be found interesting:—

Year Ending.	Total Gallons Pumped.	Average Daily Quantity Pumped.	Greatest Quantity Pumped in a Day.	Total Coal Used. Tons cwt. lbs.	Weight of Coal Used per 1,000,000 Gals. Tons cwt. lbs.	Cost of Coal per Ton. £ s. d.	Cost of Pumping 1,000,000 Gals. (Fuel only.) £ s. d.	Highest Water Line in Well Above Ord. Dat.	Lowest Water Line in Well Above Ord. Dat.	Amount taken by Broadstairs.
31st Mar., 1907	376,971,850	Gallons. 1,032,800	Sept. 3rd, 1906 1,455,680	482 5 92	1 5 35	£ s. d. 1 5 6	£ s. d. 1 12 3	April, 1906 29 5ft.	Sept., 1906 18 00ft.	Gallons.
31st Mar., 1908	379,505,444	1,039,740	Aug. 9th, 1907 1,473,963	454 13 8	1 4 0	1 10 0	1 16 0	Mar., 1908 28 6ft.	Oct., 1907 18 75ft.	.
31st Mar., 1909	410,407,458	1,124,404	Aug. 19th, 1908 1,682,750	480 16 0	1 3 48	1 6 6	1 11 0	April, 1908 27 10ft.	Aug., 1908 7 1 25ft.	July, 1908 to March, 1909 8,681,727
31st Mar., 1910	434,903,442	1,191,516	Aug. 13th, 1909 1,803,240	504 8 0	1 3 20	1 5 1½	1 9 1½	Mar. 21st, 1910 36 5ft.	Aug. 1909 16 3ft.	26,359,067
31st Mar., 1911	415,824,361	1,139,245	Aug. 17th, 1910 1,666,610	463 16 0	1 2 32	1 5 10	1 8 9	April 11th, 1910 36 30ft.	Sept. 7th, 1910 23 00ft.	6,884,352
31st Mar., 1912	461,532,861	1,261,018	Aug. 12th, 1911 2,197,310	510 10 0	1 2 13	1 6 0	1 8 9	Mar. 25th, 1912 35 5ft.	Aug. 15th, 1911 17 5ft.	13,914,996
31st Mar., 1913	460,500,967	1,261,646	July 19th, 1912 2,445,390	506 0 0	1 1 109	1 7 9	1 10 6	Mar., 1913 37 6ft.	July 20th, 1912 20 6ft.	9,274,752

I am indebted to Mr. E. A. Borg, Borough Engineer, for much of the above information.

A bacteriological examination of the water taken from the main at Shottendane, at the entrance to the Borough, is made every fortnight in the summer, and bi-monthly in the winter. The Wingham supply has now been in use for eight years and five months, and these examinations have invariably shown that the water is from a bacteriological point of view remarkably pure. The following table by Macé I again quote, as it will be seen that the following analysis compares very favourably with it:—

		BACTERIA PER C.C.	
Very pure water	...	0 to	50
Good water	...	50 „	500
Passable (mediocre) water	...	500 „	3,000
Bad water	...	3,000 „	10,000
Very bad water	...	10,000 „	100,000 and over.

The character of the micro-organisms present in the samples taken was reported to be satisfactory as regards the absence of rapidly liquefying organisms, and on no occasion were there present any bacteria resembling *B. Coli.* or other sewage organisms. There is no tendency for the water to have any plumbo-solvent action.

The two following Analyses of the water, taken during 1913, show that it maintains its high standard of purity:—

Bacteriological Analysis of the Margate Water Supply taken from the main at Shottendane, on August 27th, 1913.

PHYSICAL:—

Quantity	...	Winchester pint.
Appearance in Two-foot Tube.		
Colour	...	Clear and bright.
Suspended Matter		Nil.
Deposit	...	Nil.
Odour	...	—
Reaction	...	Neutral.
Temperature	...	21°C.

BACTERIOLOGICAL:—

I. Quantitative Examination of Micro-Organisms:—

One cubic centimetre of the water contained on an average, 10 Bacteria which were capable of growth on gelatine within 72 hours' incubation at a temperature of 22°C. One cubic centimetre of the water yielded only a single *Bacillus* growing within 24 hours' incubation at blood heat,

II. Qualitative Examination of Micro-Organisms:—

Sixty cubic centimetres of the water were added to the special Media used for the growth of Bacteria of the Typhoid Colon group of organisms and incubated for 72 hours at a temperature of 37°C. It did not yield a growth of any kind.

REMARKS:—

The results of the Examination show that the supply remains at the usual level as regards purity and absence of organic pollution. The Margate Water Supply has for many years now proved to be of the highest degree of purity, and the periodical Examinations made have shown the standard of purity is continuous.

ALEX. G. R. FOULERTON,

Bacteriological Department,
Middlesex Hospital,
London.

F.R.C.S., D.P.H. Cambridge.

Chemical Analysis of Water taken on December 4th, 1913, from the Hydrant at Shottendane.

N.B.—All numerical results expressed in grains per gallon.

Appearance	...	...	...	Clear.
Colour	...	...	...	Green Blue.
Smell	...	...	...	None.
Chlorine in Chlorides	...	...	...	1.54.
Phosphoric Acid in Phosphates	...	...	...	None.
Nitrogen in Nitrates	...	...	...	0.52.
Ammonia	...	...	...	None.
Albuminoid Ammonia	...	...	...	0.0011.
Oxygen absorbed in 15 minutes	...	...	...	Trace only.
„ „ 4 hours	...	...	...	0.016.
Hardness before boiling (Total)	...	...	...	19.3.
„ after „ (Permanent)	...	...	...	2.9.
Total Solid Matter	...	...	...	23.31.
Microscopical Examination of Deposit	...	...	...	Slight and unimportant.
Chlorine as salt	...	...	...	2.54.

REMARKS:—

The above results are satisfactory throughout and indicate water very pure organically and free from sewage percolation. The microscopical examination is also satisfactory.

HARVEY and HAWKINS,

Public Analysts, Borough of Margate.

Drainage and Water-closets. The present drainage system was designed by Mr. Baldwin Latham, and carried out in 1889 at a cost of £80,000. Since 1889 many miles of new sewers have been constructed, in fact, every street in the Borough is sewered. At the King Street Sewage Pumping Station, two sets of electrically-driven rotary sewage pumping engines have been installed. These pumps are automatically started and stopped by means of a float in the sewage well. The pumps were installed by Mr. Borg, the present Borough Engineer, and are unique in design. The bulk of the sewage flows by gravitation, but a small proportion from the low-lying districts is lifted by hydraulic pumps, and the whole of it is conveyed to a Penstock chamber at the edge of the cliff; from this it is carried in an outfall pipe 600 yards across the foreshore, and discharges into deep water at a point more than two miles to the east of the Jetty. The sea currents at this point have such a direction, that whether the tide is ebbing or flowing, the sewage is carried away from the shore and disappears in the open sea. The dead ends of the sewers are supplied with automatic flushing tanks. A large number of vent shafts have been erected, and every house is provided with an interceptor to cut it off from the main sewer. Owing to the fact that the Margate Sewerage System has been extended to Westgate-on-Sea and Garlinge, and the rapid increase in the growth of the Town, it has become necessary to contemplate the early enlargement of some of the main sewers. Mr. Borg was instructed to prepare a plan of Sewerage extension, and his scheme, which provides for many years to come, has been accepted by the Sanitary Committee, and will be carried out in the immediate future; the estimated cost being £25,000. The system of water carriage for closets has existed in the town for many years. The majority of the closets are pans on the wash-down principle; there are also a few valve closets. Every effort is made to insist on the use of modern pan closets in all classes of property, and to see that they are efficiently ventilated.

Refuse Disposal. House Refuse is collected daily over a large part of the Town in the early morning, in the remaining parts on alternate days. It is always a difficult matter for the Sanitary Authority to deal with refuse so as to get it away from the houses in the early

hours of the morning, but on the whole, Margate compares favourably with other towns in this respect, considering the distribution of the houses, and their distance from the Dust Dépôt, but by putting on extra carts the whole of the refuse is now removed from the houses by about 10 a.m. I am informed that as much as 60 tons have been collected and removed in one day during the month of August. It is most difficult to induce Ratepayers to use proper receptacles for rubbish, and it is still more difficult in many instances to get them kept moderately clean; it must be detrimental to health, especially in the summer time, to have these battered old tins and filthy boxes left about the premises. A good deal of attention of late has been given to this matter by the Sanitary Department. I am glad to say that an improvement has been effected, but there still remains a large number of offenders in this respect.

The Sanitary Committee are most desirous that each house shall be provided with a proper sanitary dustbin, and it is hoped that the householders will co-operate with them so as to make our town thoroughly up-to-date.

The Town Refuse is conveyed in covered carts to the Refuse Destructor, about a mile from the Town, where it is burnt. A most modern, up-to-date Refuse Destructor has been erected, which is capable of easily dealing with 120 tons of refuse per day, and is considered second to none in efficiency. The plant is of two complete units of four cells each with boilers, forced draught fans, steam blast flues, combustion chambers and carcase chambers. The chimney stack is 150 feet high, and is lined with fire-brick throughout.

<p>Street Sanitation.</p>	<p>In view of the rapidly increasing traffic, and especially of motor traffic, the tarring of the roads has been found to be a great boon. Most of the important roads have been treated in this way, and each year more will probably be added to the list. Sea Water has been used for the street watering, and the results are most beneficial in helping to bind together the road service, and probably disinfecting, to some extent, the surface dust.</p>
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In former Annual Reports, Dr. Thornton has urged the importance of covering the surface of courts, alleys and backways with some sort of impervious material such as tar or asphalt (and I take the opportunity of doing so this year). This is specially desirable in courts and backways adjacent to the dwellings of the poorer classes, where a large proportion of children are turned out to play by their parents. It is impossible to keep cottages clean if children are constantly bringing dirt into them, and in a dry summer the microbe-laden dust is blown into the cottages, and is liable to infect the food. An impervious coating of asphalt enables these backways to be more easily cleaned, and lessens the dangers of dust infection. Many of such courts and alleys have been dealt with during the last few years, but the undermentioned among others require attention in due course:—

Roadway and passages adjacent to 176, High Street.

Roadway in Latimer Place.

Passage at the top of Churchfields in rear of St. John's Street.

Belgrave Square.

Yard in front of 23 to 26, Church Square.

Passage at back of South side of Milton Square, No. 1 to 31, Church Road.

Passages in rear of both sides of Oxford Street.

Approach to Sparrow Castle.

Passages of Vicarage Crescent.

Passages in rear of Salmestone Road.

„ „ „ College Road (Fairlight Glen).

„ „ „ 1 to 6, Tilvoli Road.

Forecourt of No. 3 to 11, Bath Road.

Roadway to Carn Brae Cottages.

Carroways Place.

Caroline Cottages.

Passages in rear of Gordon Road.

„ „ „ Edgar Road.

„ „ „ Sweyn Road.

„ „ „ West side of Station Road.

All details on the subject of the Medical Inspection of Schools will be found in the Annual

School
Inspection, etc. Report of the School Medical Officer.

**Milk
Supply.**

There are 82 persons in the Borough who are registered as Milk Sellers; there are 7 cowsheds in the Borough; and 16 Dairymen keep cows outside the Town and send carts into the Borough for daily deliveries of milk. In the summer a large quantity of milk is brought into the Town by rail. Under the present very unsatisfactory laws we have no power of supervising the dairies supplying milk from outside the Borough, but we have to rely on the vigilance of distant Sanitary Authorities to see that they are kept clean. The cowsheds and Milk-sellers' shops are kept under frequent supervision, and on the whole are kept in fairly good condition. It is, however, a very difficult task to make certain dairymen and milk-sellers realise the importance of absolute cleanliness in everything relating to milk. During the last year or two in Margate and the surrounding country district there has been a great improvement in this respect, and there are now several dairymen who take a pride in their cows and in the cleanliness of their premises. These dairymen are performing an important public service, and it is to be hoped that the Public will appreciate their efforts and patronise them in preference to those who are too ignorant or old-fashioned to advance with the times.

Many of the dairymen have their cows regularly inspected by a Veterinary Surgeon, and some of them supply milk from Tuberculin tested cows. In a health resort like Margate this spirited enterprise is likely to add to the reputation of the Town, and I trust when the importance of drinking milk guaranteed free from Tubercle is better appreciated, that these dairies will reap their reward. By intelligent management and careful supervision of employés, it is in many instances possible to make a moderate profit at present prices. Few would object to a moderate increase in the price of milk if they were reasonably sure it was free from pollution from Tubercle and dirt from badly groomed cows and filthy surroundings. In former Reports the Public have been frequently urged to take every precaution to keep their milk covered with muslin or some similar material, and to see that jugs, &c., are well scalded. It is of little use for Sanitary Authorities to see that milk is delivered to the Public clean and wholesome, unless it is kept free from dust, dirt and flies after it reaches the consumer.

With reference to the adulteration to milk and cream, the Local Government Board have issued some new and important Regulations which took effect on January 1st, 1913. In the Circular it states that:—

“ The Regulations are designed to secure that no preservative ”
 “ shall be added to milk or to cream containing less than 35 per ”
 “ cent. by weight of milk fat, at any stage, from the place of ”
 “ production to that of delivery to the purchaser. In the case ”
 “ of cream containing over 35 per cent. of milk fat, the addition ”
 “ of boric acid, borax or a mixture of these preservative sub- ”
 “ stances, or of hydrogen peroxide is not prohibited by the ”
 “ Regulations, but is subject to a system of declaration which ”
 “ is required to be followed by all persons dealing with such ”
 “ cream for the purpose of sale for human consumption. By ”
 “ this system (Part II. of the Regulations) it is intended that ”
 “ preserved cream as an article of commerce shall in all stages ”
 “ be differentiated from cream to which no preservative has ”
 “ been added. Further, Article IV. (a) prohibits the addition ”
 “ of any thickening substance to cream or preserved cream.”

Another very important Order has been issued by the Board of Agriculture, which came into operation on May 1st, 1913. This Order authorises Compensation for the Slaughter of Tuberculous Cattle. Hitherto farmers and dairymen have naturally been reluctant to destroy Tuberculous Cattle, and it is extremely probable that Tuberculous Milk has been the cause of much tuberculous disease among human beings. In the future there is good reason to hope that this danger will be much lessened.

In a circular explanatory of the Order, the Board announce that they have obtained from the Treasury authority to refund to local authorities half the net amount payable by way of compensation for animals slaughtered during the period of five years from the coming into operation of the Order. Local authorities will thus receive substantial pecuniary relief during the initial stages of the operations now to be undertaken, during which the expenditure involved in the administration of the Order may be expected to be abnormally high.

The Board believe that public opinion is favourable to the adoption of concerted measures designed to check the spread of tuberculosis throughout the country, and no such action can be satisfactory which fails to make provision for dealing with the disease in animals. During the year seven cows were slaughtered under this Order, and a total of £39 10s. paid in compensation.

During the year 100 samples of food were analysed. From the detailed account in the Sanitary Inspector's Report, it will be seen that the analyses on the whole were satisfactory, but in a few instances vendors had to be cautioned; it was not found necessary to take legal proceedings. There is a constant supervision of premises where food is stored for sale. The Bakehouses are clean and in good condition from a sanitary point of view. Details in reference to the Sale of Food and Drugs Act will be seen in the Sanitary Inspector's Report.

Slaughter-Houses and Inspection of Meat. There are 10 registered Slaughter-houses in the Borough and 7 licensed ones. They are regularly inspected every week, and also at times of slaughtering. The newly-appointed chief Sanitary Inspector holds a special certificate in meat inspection. No carcasses or parts of carcasses have been found to be tuberculous. A large proportion of the meat consumed in the town comes from the London Markets, and has been inspected before its arrival. No meat is brought to the Borough by sea.

Housing and Town Planning Acts. Under these Acts 688 houses have been systematically inspected. Seventeen houses were so bad that it was necessary to serve closing orders, and thirteen of these have been pulled down, and the remaining four have been closed in order that they might be properly repaired. Several houses required minor repairs, and these repairs have been carried out after issuing the necessary orders. Since the introduction of the Housing Act, 1909:—

The number of houses examined	...	...	688
The number of Closing Orders issued	...	...	17
The number of houses where Minor Repairs have been carried out...	...	...	186
The number of houses pulled down	...	...	13

Among other houses that have been inspected under the Housing and Town Planning Act are dwellings in the following streets, &c. :—

Trinity Hill	Charlotte Square
Cassel's Gardens	Wheatley's Place
Love Lane	Ackhurst's Cottages
King Street	Church Street
Alkali Road	Church Street Cottages
Meeting Court	Sparrow Castle
Speller's Court	Ventnor Lane
Croft's Court	Victoria Road
Hawley Street	St. John's Road
Milton Road	Byron Road
Cowper Road	Avondale Place
Sydney Place	High Street
Market Street	New Cross Street

The town is not very well supplied with houses for the working classes, and many of them, though it is impossible to condemn them absolutely, are not by any means model dwelling houses for artisans. There are, however, a large number that are quite equal to modern requirements. The Sanitary Committee are considering a scheme for the provision of a number of model workmen's dwellings, and the Borough Surveyor has prepared plans for the provision of about 60 houses on what is known as the old reservoir site adjoining St. Peter's Footpath. Till these are built, it will be inadvisable to close any large number of the more inferior houses in the old parts of the town, as the unfortunate inhabitants would be at present quite unable to procure other houses. Many of the houses are inhabited by artisans and others who simply come down for the season, and are empty during the winter. There is little or no overcrowding, except during August, when it is almost impossible to do much to check this evil. Fortunately, in a healthy

place like Margate, the consequences are not serious for the visitors, as they are out in the fresh air all day, but it is probably prejudicial to the children of the town, who, in many cases, do not receive adequate attention, and may suffer in their development and general home training. A special Inspector has been appointed for the purposes of this Act, and, subject to the approval of the Sanitary Committee, it was arranged that the worst districts should first receive attention before the systematic inspection of the more modern parts of the town, which are not so urgent. Little, however, can be done till we have more dwellings erected suitable in cost and design for the requirements of the working classes. There is a fair amount of open space attached to most of the houses, and most of the streets are wide enough to give excellent ventilation. All houses are built under the supervision of the Borough Engineer and a special Building Inspector.

**Factory and
Workshop
Acts.**

Margate, not being a manufacturing town, does not possess many factories in the ordinary sense of the term, the most important being Mineral Water Works, Printers, and Engineers. During the year the various slaughter-houses, dairies, cowsheds, milkshops, bakehouses, etc., have been visited, and on the whole were found in a healthy condition, and that they complied with the Public Health Acts and Local Bye-laws. On the occasion on which it was necessary to call attention to minor breaches of Regulations the suggestions were readily carried out. The slaughter-houses receive weekly visits from the Sanitary Inspector or his assistant, who also pay frequent visits to other places requiring sanitary supervision. The Sanitary Department is always glad to receive notice of any nuisance from either Residents or Visitors.

Mortuary.

The Mortuary is situated in King Street in what is known as the Pumping Station Yard. It is an old building, and quite out-of-date. The situation, too, is open to many objections. The Sanitary Committee have considered the matter, and I hope soon a more suitable site may be found and a building erected which will meet the necessary requirements.

The number of cases notified under the Infectious Prevalence and Disease Notification Act in 1913 was 88, as against 124 in the previous year. There were 29 Infectious Disease cases of *Diphtheria*; these were chiefly isolated and Tuberculosis. cases, and it was very rarely possible to detect the source of infection. The Antitoxin Order has proved useful, and Antitoxin has been supplied gratuitously to medical men for 7 patients unable to afford this method of treatment; 27 cases were removed to the Isolation Hospital and doubtless were treated with Antitoxin on their arrival. The County Council Research Laboratory at Maidstone has provided during the year several reports on doubtful cases of *Diphtheria* sent to them by local practitioners. There have been 34 cases of *Scarlet Fever* in 1913 (64 in 1912). Every case, is, so far as possible, followed up by myself. The type of the disease has again been very mild, only one case proving fatal. Some of the cases were found peeling, and on enquiry it was ascertained that the children had only been unwell for a day or two with what the parents considered a slight cold. There were no outbreaks among the numerous private schools, nor among the Elementary Schools. As was stated in previous reports, *Scarlet Fever*, owing to its mildness of type in recent years, is a disease most difficult to stamp out, a very large proportion of cases showing such slight symptoms of rash and sore throat that parents cannot be expected to suspect the existence of the disease, and in a certain proportion of cases it is pretty certain that patients are merely "carriers," conveying the germs of the disease in their throats without any signs of soreness, rash, or indisposition. There was only one case of *Enteric Fever* in the Borough, a child five years of age. It was not possible to ascertain the source of the infection; no sanitary defect was found in the house. There were two cases of *Puerperal Fever*, and two of *Poliomyelitis*.

The "Public Health (Tuberculosis) Regulations, 1908" have been in force in the Borough since the beginning of 1909. These Regulations provided for the Notification to the Medical Officer of Health of cases of Pulmonary Tuberculosis occurring among the inmates of Poor Law Institutions, or amongst persons under the care of District Medical Officers. The notification of these cases

enabled the Medical Officer of Health to visit the residence of Poor Law patients who were suffering from Pulmonary Tuberculosis or who had recently left premises which they may have infected. He was able to advise the friends of the patients on the necessary steps to be taken to prevent their contracting the disease, and make such other enquiries as might have been useful in preventing the spread of this usually fatal infectious disease. The Regulations also enabled the Medical Officer of Health to have infected premises cleansed and disinfected before they were occupied by new tenants. On the occurrence of a death from Tuberculosis, the Registrar of Deaths is good enough to forward a printed note to the Householder, offering the services of the Sanitary Staff for the disinfection of the premises; this offer has been accepted in many cases. Since this the arrangement was sanctioned by the Sanitary Committee. It also emphasises to the public the fact that Tuberculosis is an infectious disease. I have also drawn up a card of simple instructions for the friends of patients suffering from Consumption, which shows them how they themselves may avoid contracting the disease. These cards are sent to the Medical men in the Town in the hope that they might distribute them among their private patients.

The Public Health (Tuberculosis) Regulations, 1912, came into operation on February 1st, 1913. Under these regulations the Local Government Board have ordered that in addition to Tuberculosis of the Lungs (Consumption) all other cases of Tuberculosis shall from February 1st, 1913, be notified to the Medical Officer of Health, by the Medical Practitioner; such as Tuberculosis of Bones, Joints, Glands, etc. In some cases of this surgical type, it may be desirable for the Sanitary Authority to take steps for disinfection, etc., and at any rate the inclusion of all cases of Tuberculosis in this Order will make it possible to more correctly estimate the number of cases of what is often called the White Plague that exists in the country, and it will further emphasize to the public the contagious nature of Tuberculosis.

The following table shows the number of Primary Notifications, Form A, received from the 1st February to 31st December inclusive:—

Notified by			Pulmonary Tuberculosis.	Other Tubercular Diseases.
Private Practitioners in Margate	...		54	38
Poor Law Medical Officers	...	...	0	7
Practitioners outside Borough	...		1	1
Total	...	...	55	46

It is very difficult to estimate in a health resort like Margate the exact number of Tuberculosis patients who are actually residents, as so many people take up their residence here for two or three years owing to the reputation the Town has for bracing air; if only actual residents were counted, the number of Tuberculous patients would be materially less.

During the year 1913 there occurred among Margate residents 14 deaths from Phthisis and 12 deaths from other Tuberculous disease.

Unfortunately, many cases of Phthisis are sent to Margate by Doctors who are under the erroneous impression that Margate is a "good place" for consumptive patients. It cannot be too widely known, as has been stated on former occasions, that unless in the very earliest stages, the climate of Margate is as a rule most unsuitable for cases of consumption, owing to the boisterous winds and the absence of shelter.

The accommodation for patients suffering from infectious disease is as follows:—The greater proportion of patients suffering from Infectious Diseases are sent to the Isle of Thanet Joint Hospital, Haine, two miles from Margate. This Hospital was opened in 1902, and is designed on the most modern principles. It is capable of taking 122 patients, and is provided with single-bedded wards for private patients. There is accommodation for 74 Scarlet Fever cases, 19 Diphtheria, 19 Enteric. 2 for doubtful cases, and 8 beds in a separate block for cases of mixed infection. There is a special Hospital available for Small-pox on a separate site capable of holding 16 patients. Most of the important schools

and institutions have provided their own sanatoria. There are at present no arrangements made by the Town Council for treating Tuberculosis. The disinfecting of infected houses, bedding, etc., of ratepayers, is carried out at the public expense. A Washington Lyon's Steam Disinfecting Apparatus has been erected in the Town Yard.

It cannot be too widely known that the Sanitary Staff are always ready and anxious to disinfect premises, in which cases of infectious diseases have been staying, not only those officially notified, but cases of Cancer, Blood Poisoning, etc., but it is of course necessary for householders to acquaint the Sanitary Staff of the cases in question.

**The
Midwives'
Act.**

This Act is administered in Margate by the County Medical Officer, who sends a specially qualified Lady Inspector to supervise the local midwives. From his report for 1912 it will be seen that there are four registered midwives in Margate; four non-registered maternity nurses and one certified midwife on the Register not practising. From my personal experience, I believe we have only two midwives in actual practice.

**Notification of
Births Act.**

This Act has been in operation in Margate for four years and has undoubtedly been of practical use to the mothers, especially the young mothers, who are sensible enough to learn. It enables the Health Visitor to call on the mothers attended by midwives and offer her advice on the many small matters that are so necessary if the infants are to be fed and clothed properly. I have heard that Miss May's advice is much appreciated by the mothers in many instances. I desire again to thank my colleagues for their courtesy in sending these notifications with such promptness. The following table will give interesting information as regards this Act since it was adopted in Margate:—

Total Number of Births notified in each year.	1909.	1910.	1911.	1912.	1913.
Attended by Doctors	168	228	172	205	206
„ Midwives	160	203	198	210	207
Notified by Parents	42	18	8	7	6
Number of Births registered in each year	381	460	430	440	446

HEALTH VISITOR'S REPORT FOR 1913.

Number of cases visited	221
„ „ attended by Midwives	217
„ „ „ „ Doctors	4
Breast fed Babies (a few partly by hand)	198
Artificially fed Babies	16
Deaths, mother (eclamprice)	1
„ babies, stillborn	7
„ „ premature and feeble, 2; convul- sions, 2; died within two weeks, 3	7
Visits paid	302

There is nothing very special to report about the mothers and babies this year. They have been very well, and healthy. The work goes on steadily and quietly. The “ old ” mothers look upon the Health Visitor as an old friend, and the new mothers appreciate her visits and advice. In nearly every case the mothers have followed out instructions most carefully, when the results have always been good.

EDITH E. G. MAY,

(Certified Midwife by Examination)

Health Visitor for Margate.

March 27th, 1914.

PART 2.

Vital Statistics, etc., in 1913.

Population. The population of Margate at the census in March, 1911, was 27,086; the estimated population at the end of 1913 was 28,000. It will be seen, on reference to the statistics of former years, that the estimated increase of the population had been too generous; this has been the case in many other towns. It is always difficult to estimate the increase of population with any degree of exactitude; in Margate there has been a relatively large increase of houses during the last few years, but as many of these are lodging-houses, at the period of the year when the census is taken, in many cases they do not contain the number of dwellers proportionate to their size. For a large part of the year, owing to the influx of invalids and visitors, the population is manifestly from 10 to 20 per cent. higher than is officially estimated, and for a few weeks during the season the population exceeds 100,000. Owing to the above considerations and to the fact that another feature of our population is the exceptional number of children between the ages of 5 and 15 in the various schools (estimated as at least 2,500) and convalescent homes, and also the large proportion of unmarried women who are lodging-house keepers, domestic servants and shop assistants, it is clear that our mortality statistics and birth rate cannot be compared with statistics of towns of a more evenly balanced population, and it speaks well for the health of the town that the figures come out so favourably.

The total number of births registered in the
Birth Rate. Borough in 1913 is as follows : — Boys, 230; Girls, 216; total, 446; of these, 22 were illegitimate. These figures are “ uncorrected.” As 7 children of Margate parents were born outside the district, the “ corrected ” total of births is 453, giving a birth rate of 16.1 per 1,000. The birth rate is still far below what it should be; fourteen years ago it was 23.7 per 1,000. The following table compares the birth rates in Margate with those in England and Wales generally:—

	MARGATE.		ENGLAND & WALES.
1904	19.0	...	27.9
1905	16.0	...	27.2
1906	16.0	...	27.0
1907	15.5	...	26.3
1908	14.8	...	26.5
1909	13.2	...	25.6
1910	15.9	...	24.8
1911	15.8	...	24.4
1912	16.2	...	23.8
1913	16.1	...	23.9

The disproportion in the above birth rates is probably to a great extent due to the somewhat unusual conditions of our population which are referred to in the previous paragraph.

The total number of deaths registered in the
Death Rate. Borough from all causes in 1913 was 312, which, on the estimated population of 28,000, gives an uncorrected death rate of 11.1 per 1,000.

These deaths are made up as follows:—

Residents	...	...	...	223
Residents in Public Institutions	...			11
Non-Residents	...	...	...	33
Non-Residents in Public Institutions	...			45
				<hr/>
				312

The gross total as above corrected is as follows:—

- (1) By the subtraction of 78 non-residents.
- (2) By the addition of 48 deaths of Margate persons who died outside the Borough, viz., 1 at Haine Isolation Hospital, 23 at Minster Workhouse, 4 at the Chartham Asylum, and 20 elsewhere.

This gives a nett total of 282, or a nett death rate for Margate of 10.0.

This death rate is further corrected for age and sex distribution by a factor supplied by the Registrar-General, which, in the case of Margate, is 1.0254, giving a “corrected” death rate of 10.3.

The reputation Margate possesses as a first-rate health resort induces many invalids to come to the town. The vast majority return home cured or much improved in health, but a certain proportion are unwisely sent here too late to receive any benefit, and these materially help to swell our death rate, because many of them take up their residence in Margate for a few years, and become, technically, “residents.”

The following table shows how Margate compares with other localities:—

ENGLAND AND WALES.

Birth-rates and Death-rates in the Year 1913 (Provisional Figures).

	Annual Rates per 1,000 living.			Deaths under One Year to 1,000 Births.
	Births.	Deaths.		
		Crude.	Corrected.	
England and Wales	23.9	13.7	13.4	109
95 great towns including London	25.1	14.3	14.7	106
146 smaller towns	23.9	12.8	13.0	112
England and Wales less the 241 towns	22.2	12.1	12.1	96
London	24.8	14.2	14.2	104
Margate	16.1	10.0	10.3	81

It may be interesting to compare the causes of death over a period of years. The following table will, to some extent, show how the incidence of disease varies in Margate, though the numbers are too small to enable any very definite deductions to be drawn:—

Deaths of "Residents" in Margate whether occurring
in or beyond the district.

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Small Pox ... ..	...	...	...	...	...	...	1	...	...	...
Measles	11	...	3	6	...	...	...	6	7	...
Scarlet Fever	1	2	1	...	...	1	3	1	...	1
Whooping Cough	2	2	6	2	3	1	13	...	5	2
Diphtheria (including Membranous Croup)	1	2	6	9	3	2	5	2	2	2
Enteric Fever	3	...	6	3	1	1	4	1	2	...
Epidemic Influenza ... ..	...	1	3	2	4	5	2	1	1	4
Diarrhoea	25	11	20	4	13	3	2	23	4	4
Enteritis	3	11	3	7	9	3	...	...	2	4
Gastritis ... ..	...	...	...	...	...	...	2	...	...	...
Puerperal Fever ... ..	...	...	1	...	...	...	...	...	1	2
Erysipelas ... ..	...	...	...	...	...	1	1	1	...	...
Other Septic Diseases	2	5	4	4	6	3	...	...	...	...
Appendicitis ... ..	...	...	...	...	...	...	...	2	...	4
Phthisis (Pulmonary Tuberculosis)	33	30	20	36	27	35	38	28	29	14
Other Tuberculous Diseases	11	18	15	12	14	16	12	8	9	12
Rheumatic Fever ... ..	...	...	...	...	...	...	...	3	...	1
Cancer, Malignant Disease	27	18	32	25	31	23	29	35	35	19
Bronchitis	11	15	12	21	19	21	13	13	10	8
Pneumonia	5	15	13	10	9	12	8	14	13	21
Pleurisy ... ..	...	...	...	...	...	1	...	...	...	...
Other Diseases of Respiratory Organs	5	7	...	...	2	4	3	...	3	...
Alcoholism—Cirrhosis of Liver	5	7	11	3	10	14	4	1	6	3
Venereal Diseases	2	3	1	...	...	2	...	...	...	...
Premature Birth and Congenital Debility	14	13	9	12	8	3	10	14	27	19
Diseases and Accidents of Parturition	2	...	...	...	...	2	1	2	1	1
Heart Diseases	25	28	29	24	30	31	33	...	...	35
Violent Deaths	4	8	3	5	7	7	3	3	3	4
Suicides	3	4	1	6	4	2	3	2	5	3
All other causes	115	120	122	121	112	123	132	157	150	119
All causes	311	320	321	312	312	317	322	317	315	282

During the year 1913 there have been 37 deaths of Infants under one year of age in the Borough, which is equivalent to an infantile mortality rate of 81 per 1,000 births registered. The Infantile Mortality rate for 1913 in England and Wales is 109 per 1,000. On referring to Table IV., it will be seen that the Infant Mortality is chiefly due to premature birth and feeble nutrition in the first few weeks of life. In most cases this is owing to feeble nutrition of the mother, and to some extent to their lack of knowledge of the feeding and management of young infants, though this cause of Infantile Mortality in Margate is lessened by the very valuable advice given to mothers by the Health Visitor.

Deaths of Infants under one year of age in Margate.

	1905	1906	1907	1908	1909	1910	1911	1912	1913
Measles	0	0	2	0	0	0	4	2	0
Whooping Cough	2	2	1	1	0	8	0	4	1
Diphtheria	0	1	0	0	0	0	0	0	0
Diarrhœa	8	18	4	10	2	1	15	2	3
Enteritis	9	2	5	8	1	0	4	2	4
Gastritis	0	0	0	0	0	1	1	0	0
Tuberculosis	0	2	2	0	3	1	5	1	0
Other Septic Disease	1	0	0	0	0	0	—	—	0
Bronchitis	2	1	6	6	5	4	2	3	1
Pneumonia	1	1	2	1	0	0	5	1	2
Venereal Disease	1	0	0	0	0	0	—	—	0
Congenital Malformation	—	—	—	—	—	—	2	5	4
Premature Births	13	9	12	8	3	10	6	15	11
Atrophy, Debility	—	—	—	—	—	—	4	10	3
Injury at Birth	—	—	—	—	—	—	1	0	0
Heart Disease	0	0	2	0	0	0	—	—	0
Convulsions	—	—	—	—	—	—	7	0	3
Accidents	1	0	2	2	0	1	—	—	1
All other causes	17	11	10	17	11	18	0	3	4
	55	47	48	53	25	44	56	48	37

NOTE.—These Diseases were not specifically mentioned in the years marked with a dash (—), but were in most cases attributed to “other causes.”

The following 13 deaths occurred among residents in and beyond the district from the seven zymotic diseases:—Enteric Fever, 0; Measles, 0; Scarlet Fever, 1; Diphtheria, 2; Diarrhœa, 8; Whooping Cough, 2; giving a Zymotic Death Rate of 0.4. Excluding Diarrhœa, the Zymotic Death Rate would be 0.1. The following table shows the Zymotic Death Rate for the last ten years:—

YEAR.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	Average of 10 years.
Zymotic Rate.	0.5	1.7	0.6	1.6	0.8	0.6	0.3	1.0	1.0	0.7	0.4	0.8

Details relating to these diseases will be seen in the paragraphs on the Prevalence and Control of Infectious Diseases and Infant Mortality.

TABLE I.

VITAL STATISTICS OF MARGATE DISTRICT DURING 1913 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.			TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.		
		Uncorrected Number.	Nett.		Number.	Rate.	of Non- Residents registered in the District.	of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.		
1	2	3	4	5	6	7	8	9	10	11	Number.	Rate.
1908	28700	425	—	14·8	328	11·4	102	41	53	124	312	10·8
1909	28800	381	—	13·2	319	11·0	104	49	25	65	317	11·0
1910	28850	460	—	15·9	311	10·7	82	56	43	93	322	11·1
1911	27194	430	430	15·8	382	14·0	105	47	56	130	324	11·9
1912	27629	440	448	16·2	346	12·5	89	58	48	107	315	11·3
1913	28000	446	453	16·1	312	11·1	79	48	37	81	282	10·0

Area of District in acres (land and inland water), 2961. Total population at all ages, 28,000.
 Number of inhabited houses, 6,376. Average number of persons per house, 4·9.

TABLE II.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1913,
IN THE MARGATE DISTRICT.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.							
		Under 1	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
Small Pox ... ..	...	...	..	...	...	...	...	...	...
Cholera (C) Plague (P) ...	...	...	..	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	29	3	18	5	2	1	...	...	27
Erysipelas	20	...	6	3	3	7	...	1	...
Scarlet Fever	34	...	25	1	1	...	...	...	29
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...
Enteric Fever	1	...	1	...	...	...	...	...	...
Relapsing fever (R)	...	...	...	...	...	...	...	...	...
Continued Fever (C)	..	...	...	...	...	..	...	...	...
Puerperal Fever	2	...	...	...	2	...	...	...	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...
Poliomyelitis	2	1	...	...	...	...	...	...	...
Pulmonary Tuberculosis	54	1	5	10	30	7	...	1	...
Other forms of Tuberculosis...	38	...	19	7	8	2	...	...	...
Totals	180	1	74	26	46	17	2	56	

Isolation Hospital—Isle of Thanet Joint Board Hospital, at Haine. Total available beds, 116.
 Small Pox Hospital on a neighbouring site—and additional 16 beds.

TABLE III.

CAUSES OF, AND AGES AT DEATH
DURING THE YEAR 1913, IN THE
MARGATE DISTRICT.

CAUSES OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									Total Deaths whether of "Residents" or "Non- Residents" in Institutions in the District.
		All ages.	Under 1 year.	1 and under 2 yrs	2 and under 5 yrs	5 and under 15 years.	15 & under 25 yrs.	25 & under 45 yrs.	45 & under 65 yrs.	65 and upwards.	
All causes	(Certified (Uncertified	275 7	34 3	6 2	5 ...	5 ...	8 ...	44 ...	73 1	100 1	56 ...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...
Small Pox	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	1	...	...	1	...	...	...	...	...	...
Whooping Cough	...	2	1	...	1	...	...	...	...	...	...
Diphtheria and Croup	...	2	...	...	...	2	...	...	...	...	...
Influenza	...	4	1	...	...	...	...	...	...	3	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis)	...	14	...	...	...	...	4	8	2	...	5
Tuberculosis Meningitis	...	3	...	2	1	...	...	...	...	...	3
Other Tuberculosis Diseases	...	9	...	...	...	1	1	4	2	1	27
Cancer, malignant disease	...	19	...	...	...	...	...	1	10	8	3
Rheumatic Fever	...	1	...	...	...	...	...	...	...	1	...
Meningitis	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease	...	35	...	...	...	...	...	7	12	16	2
Bronchitis	...	8	1	1	...	...	...	1	...	5	...
Pneumonia (all forms)	...	21	2	1	1	1	...	4	9	3	1
Other diseases of respiratory organs	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis	...	8	7	1	...	...	...	...	...	...	...
Appendicitis and Typhlitis	...	4	...	...	1	...	...	1	...	...	...
Cirrhosis of Liver	...	1	...	...	...	...	...	1	2	...	4
Alcoholism	...	2	...	...	...	...	...	2	...	...	...
Nephritis and Bright's Disease	...	8	...	...	...	...	...	1	3	4	...
Puerperal Fever	...	2	...	...	...	...	...	2	...	...	...
Other accidents and dis- eases of Pregnancy and Parturition	...	1	...	...	...	...	...	1	...	...	...
Congenital Debility and Malformation, including Premature Birth	...	19	18	1	...	...	...	...	...	...	...
Violent Deaths, excluding Suicide	...	4	1	...	...	...	...	1	1	1	...
Suicide	...	3	...	...	...	...	...	2	1	...	...
Other Defined Diseases	...	49	4	2	...	...	2	6	21	14	7
Poliomyelitis	...	...	...	...	...	...	...	...	...	...	1
Diseases ill-defined or un- known	...	62	2	...	...	1	1	2	11	45	4
		282	37	8	5	5	8	44	74	101	56

TABLE IV.

INFANT MORTALITY DURING THE YEAR 1913.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATH.					Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks & under 3 months.	3 Mths. & under 6 Months.	6 Mths. & under 9 Months.	9 Mths. & under 12 Months.	Total Deaths under 1 Year.
All Causes { Certified. Uncertified.					:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::	:: ::
{	Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping-Cough	...	...	...	...	...	...	...	...	1	...	...	...	1
Diphtheria and Croup					...	...	...	...	...	...	...	...	...
Erysipelas					...	...	...	...	...	...	...	...	...	...
{	Tuberculous Meningitis				...	...	...	...	...	...	...	...	...	...
	Abdominal Tuberculosis				...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases				...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)					...	...	...	...	...	...	...	...	...	...
Convulsions					...	1	...	...	1	...	1	1	...	3
Laryngitis					...	...	...	...	...	...	...	...	...	...
Bronchitis					...	...	...	...	...	...	...	...	1	1
Pneumonia (all forms)					...	...	...	1	1	...	1	...	...	2
{	Diarrhœa	...	...	...	...	...	...	...	...	1	...	2	...	3
	Enteritis	...	...	...	...	1	...	...	1	...	1	1	1	4
Gastritis					...	...	...	...	...	...	...	...	...	...
Syphilis					...	...	...	...	...	...	...	...	...	...
Rickets					...	...	...	...	...	...	...	...	...	...
Suffocation, overlying					...	...	...	...	...	...	...	...	...	...
Injury at birth					...	...	...	...	...	...	...	...	...	...
Atelectasis					...	...	1	...	1	...	...	...	...	1
{	Congenital Malformations				...	1	1	...	2	1	1	...	...	4
	Premature Birth				...	4	...	1	4	9	1	...	1	11
	Atrophy, Debility, and Marasmus				...	...	1	1	...	2	...	1	...	3
Other Causes					...	...	1	...	1	...	1	2	...	4
Total					6	3	4	5	18	4	6	6	3	37

NETT
BIRTHS IN THE YEAR { Legitimate: 431.
Illegitimate: 22. }

NETT INFANTS'
DEATHS IN THE YEAR { Legitimate: 34.
Illegitimate: 3. }

Annual Report of the Medical Officer of Health for the year 1913, for the Borough of Margate, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries)	60	—	—
WORKSHOPS (Including Workshop Laundries)	345	4	—
WORKPLACES (Other than Outworkers' premises included in Part 3 of this Report)	160	—	—
Total	565		—

2.—Defects found in Factories, Workshops and Workplaces.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :</i>				
Want of cleanliness	5	5	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	8	8	—	—
Sanitary accommodation { insufficient	1	—	—	—
{ unsuitable or defec- { tive	5	5	—	—
{ not separate for sexes	2	—	—	—
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	—
Breach of special sanitary require- ments for Bakehouses (ss. 97 to 100)	—	—	—	—
Other offences (Excluding offences relating to outwork which are in- cluded in Part 3 of this Report)	—	—	—	—
Total	21	18	—	—

Outworkers' List.						
Lists received from Employers.						
NATURE OF WORK.	Sending twice in the year.			Sending once in the year.		
	Lists.	Outworkers.		Lists.	Outworkers.	
		Con-tractors	Work-men.		Con-tractors	Work-men.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Wearing Apparel—						
(1) making, &c.	2		4			
(2) cleaning and washing						
Household linen						
Lace, lace curtains and nets						
Curtains and furniture hangings						
Furniture and upholstery	2		2			
Electro-plate						
File making						
Brass and brass articles						
Fur pulling						
Cables and chains						
Anchors and grapnels						
Cart gear						
Locks, latches and keys						
Umbrellas, &c.						
Artificial Flowers						
Nets, other than wire nets						
Tents						
Sacks... ..						
Racquet and tennis balls						
Paper, &c., boxes, paper bags						
Brush making						
Pea Picking						
Feather sorting						
Carding, &c., of buttons, &c.						
Stuffed toys						
Basket making						
Chocolates and sweetmeats						
Cosaques, Christmas crackers,						
Christmas stockings, &c.						
Textile weaving						
Total	4		6			

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year.				Number		
(1)				(2)		
Important classes of work-shops, such as workshop bakehouses, may be enumerated here.	Bootmakers	...	38	Harness Makers	...	2
	Drapers and Milliners		32	Builders	...	31
	Boatbuilders	...	1	Plumbers & Decorators		17
	Blacksmiths	...	11	Picture Framers	...	3
	Watchmakers	...	11	Dressmakers	...	32
	Cycle Works	...	8	Basket Makers	...	1
	Laundries	...	66	Beer Bottlers	...	2
	Motor Works	...	4	Tailors	...	28
	Coach Works	...	7	Dyers	...	1
	Bakehouses	...	27	Garages	...	4
	Polishers	...	1	Total number of workshops		
	Minerals	...	12	on Register	...	350
	Cabinet Makers	...	11			

5.—Other Matters.

Class (1)	Number (2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Work- shop Acts (s. 5, 1901) { Notified by H.M. Inspector	9
{ Reports (of action taken) sent to H.M. Inspector	6
Other	—
Underground Bakehouses (s. 101):—	
Certificates granted during the year	—
In use at the end of year... ..	15



BOROUGH OF MARGATE.

:: REPORT ::

OF THE

Sanitary Inspector

FOR THE

Year ending December 31st, 1913.

Margate :

Printed by W. J. Parrett, Ltd., "Gazette" Office, 25, Cecil Square,
1914.





*To His Worship the Mayor, Aldermen, and Councillors of
the Borough of Margate.*

GENTLEMEN,

I beg to submit for your information and consideration a statement of the Sanitary Work which was carried out during the year 1913, mostly under the supervision of Mr. Edward Elliot, your late Inspector of Nuisances.

It will be seen by the tabular statement that six thousand and twenty-seven houses and other premises have been inspected, and one thousand four hundred and thirty-six notices and letters have been issued from the department to owners and occupiers for the abatement of nuisances, etc. The large number of notices issued is accounted for by the one thousand one hundred and forty notices sent out to owners and occupiers to provide dustbins.

Sanitary work carried out during the year 1913:—

No. of Complaints received	...	...	237
„ „ Inspections made	...	...	6,027
„ „ Re-inspections made	...	...	2,034
„ „ Notices and letters sent with respect to matters requiring attention under the Public Health Acts	...	...	1,436

Description of work carried out:—

Houses:—

Unfit for habitation, Closed or demolished	...	...	2
„ „ „ Improved	...	...	3
New Floors laid or repaired	...	...	11
Overcrowding abated	...	...	8
Cleansed and limewashed	...	...	27
Means of ventilation improved	...	...	15
Supplied with a sufficient supply of water	...	...	2
Water spouts fixed or repaired	...	...	13

Down spouts disconnected from the drain ...	2
Yards repaved with cement concrete ...	2
„ „ „ asphalt	2
Accumulations of manure or refuse removed	108
Dirty yards cleansed	27

Bakehouses:—

Cleansed	5
-----------------	---

Dairies and Milk Shops:—

Paving provided to Dairy	1
---------------------------------	---

Drainage:—

Cleansed or repaired	57
Re-constructed	4
New drains constructed	3
Ventilated	3
Inspection chambers built	3
Cesspits abolished	3
Additional gullies fixed in yards ...	3
New sinks fixed	2
Waste pipes unstopped	8
Gullies unstopped or cleansed	14

Water Closets:—

Limewashed or cleansed	24
Repaired	6
Re-constructed	1
Light and ventilation improved ...	1
Wash down w.c.'s provided	9
Provided with a sufficient supply of water ...	1
Soil pipes repaired or renewed	2
New flush pipes fixed	4
New cisterns fixed	8
Cisterns repaired	31

DUSTBINS.

A great deal of attention has again been paid to seeing that proper dustbins are provided for the removal of refuse from dwelling-houses and other premises.

During the year one thousand two hundred and fifty-nine inspections were made of dwelling-houses, etc., to see if proper dustbins were provided, and six hundred and seventy-two premises were found without the same, old wood boxes, tubs, etc., being used. One thousand one hundred and forty notices have been served on the owners and occupiers to provide proper dustbins, and this has resulted in four hundred and twenty-five dustbins being provided.

HOUSING AND TOWN PLANNING ACT, 1909.

Since the Housing and Town Planning Act, 1909, came into force, six hundred and eighty-eight houses have been inspected, and the sanitary condition of each of the said houses has been recorded on separate cards, which are being kept under a card-index system. During the past year seventy-two houses were inspected under the above Act, and the defects found, such as leaky roofs, broken plastering, dirty ceilings, broken sash-lines, defective floors, roofs, spouts, and yard pavements, have been remedied.

HOUSES LET IN LODGINGS.

There are at present ten houses let in lodgings in the Borough, that is houses which are occupied by members of more than one family. These houses have been regularly inspected with regard to their cleanliness, and also to see that no overcrowding has occurred.

STABLES.

Particular attention has been paid to the inspection of stables in order to see that the manure is removed and not allowed to accumulate.

During the year thirty-eight notices were served for the removal of accumulations of manure on occupiers of stables. On the whole the stables have been kept in a fairly satisfactory manner, and it is only fair to say that the occupiers experience great difficulty in the summer season in getting the farmers to come and remove the manure.

OYSTER AND SHELL FISH STORES.

As in previous years, the various Oyster and Fish Stores have been kept under observation; also shops and hawkers' barrows. They have generally been found in a satisfactory condition.

FISH FRYING SHOPS.

There are twelve shops and places in the Borough used for the business of fish frying; these are kept constantly under observation, both at the time of frying in the evening, and also during the day time, to see that the premises and apparatus are kept in a clean condition. They have generally been found in a clean condition.

MARINE STORES.

There are three Marine Stores in the Borough, to which a considerable amount of rags, bones, fat, etc., are brought, and as these articles are often in a very offensive condition it is surprising that we have not had more complaints; this can be only put down to the efforts of the occupiers to prevent nuisances arising by having the above articles removed daily.

SLAUGHTER HOUSES.

There are ten registered and seven licensed Slaughter Houses in the Borough, and your Inspectors have kept them under frequent supervision. Each Slaughter House is visited at least once a week and also when killing is in progress. Attention has been paid by the butchers to the removal of the various offal, etc., produced during killing, and on very few occasions has it been necessary to call the notice of the occupiers to this matter.

The only Knackers' Yard, situate in the rear of the Hall-by-the-Sea, has been kept in a satisfactory condition.

MORTUARY.

The Mortuary has been used on ten occasions for the purpose of depositing bodies therein.

MERCHANT SHIPPING ACT.

The vessels using the Harbour have been inspected and kept under observation with respect to their condition; they are

generally composed of barges, or small coasting vessels, and very rarely carry any females so as to require the necessity of providing separate accommodation. They have generally been found in a clean condition.

FACTORY AND WORKSHOPS ACT.

It is the duty of the Local Authority to keep a register of all Workshops, and they are also responsible for seeing that the sanitary condition is satisfactory. With regard to factories, it is different; their sanitary condition is under the control of His Majesty's Inspectors of Factories with the exception that we are charged with seeing that proper, suitable and sufficient sanitary accommodation is provided, and also separate accommodation for the sexes. There are three hundred and fifty Workshops upon the Register, and during the year five hundred and sixty-five inspections have been made. The following defects were found:—

Want of cleanliness	...	...	...	5
Sanitary accommodation—				
Insufficient	...	...	...	1
Unsuitable or defective	...	...	...	5
Not separate for sexes	...	...	...	2
Other nuisances	...	...	...	8

The Workshops consist of the under-mentioned trades or businesses:—

Bootmakers	...	...	38	Cabinet Makers	...	...	11
Drapers and Milliners	...	...	32	Harness Makers	...	...	2
Boat Builders	...	...	1	Builders	...	...	31
Blacksmiths	...	...	11	Plumbers and Decorators	...	...	17
Watchmakers	...	...	11	Picture Framers	...	...	3
Cycle Works	...	...	8	Dressmakers	...	...	32
Laundries	...	...	66	Basket Makers	...	...	1
Motor Works	...	...	4	Beer Bottlers	...	...	2
Coach Builders	...	...	7	Tailors	...	...	28
Bakehouses	...	...	27	Dyers	...	...	1
Polishers	...	...	1	Garages	...	...	4
Mineral Water Bottlers	...	...	12				

Total, 350.

OUTWORKERS.

Two firms supplied the names of three outworkers twice during the year.

DAIRIES AND COWSHEDS.

There are seven persons who keep Cows within the Borough, and there are sixteen Farmers or Cowkeepers who reside outside the Borough but who bring their milk into the Town and distribute it to their customers from their carts. There are eighty-two persons who sell milk in small quantities, generally purchasing about a gallon a day, and this is done more for the convenience of their customers than what they make out of it. The milk is often kept alongside paraffin oil, bloaters, etc.

The total number of names upon the Register is one hundred and five.

The Cowsheds have been regularly inspected, and have generally been found in a satisfactory condition, consistent with the keeping of cows; the sheds have been regularly cleaned out daily, and limewashed in accordance with the Bye-laws in respect to Dairies and Cowsheds. There is also a large quantity of Milk brought into the Town by train, and observation has been kept on this, and samples have been taken by us, and the Analyst has certified them to be genuine Milk.

AMBULANCE AND DISINFECTION.

During the year we have removed to the Isolation Hospital at Haine forty-five patients suffering from the various notifiable diseases, viz., twenty-five of Scarlet Fever and twenty of Diphtheria; thirty patients less than in the year 1912. One case of Scarlet Fever and two cases of Diphtheria were removed to private houses, two less than last year; making a total of forty-eight patients removed during the year.

The removal of these patients, and also for other infectious diseases, has necessitated the fumigation of one hundred and thirty-three rooms, and also the disinfection at the Steam Disinfector, St. John's Road, of the under-mentioned articles:—

20 Beds	138 Pillows
5 Palliasses	181 Blankets
56 Bolsters	38 Rugs, Quilts, Counterpanes, &c.
2 Suits of Clothes	28 Cushions
63 Mattresses	75 Bundles of Miscellaneous Articles

making a total of six hundred and six articles disinfected.

A large number of disinfections were carried out where cases of Tuberculosis, Cancer, Measles, etc., had occurred, or for any other cause in which disinfection was thought necessary.

FOOD AND DRUGS ACTS.

During the year 1913 one hundred samples of various foods, etc., were purchased under the above Acts. One portion of each sample was delivered to Messrs. Harvey and Hawkins, the Public Analysts, at Canterbury, the Analysts to the Borough.

Description and number of samples obtained:—

Nature of Sample.	Adulterated.	Genuine.	Informal.	Formal.	Total.
Milk	3	32	—	35	35
Condensed Milk ...	—	5	5	—	5
Cream	—	5	5	—	5
Butter	—	19	—	19	19
Milk Blended					
Butter	—	1	—	1	1
Margarine... ..	—	10	—	10	10
Lard	—	5	—	5	5
Sugar	—	5	—	5	5
Coffee	—	3	—	3	3
Coffee Mixture ..	—	2	—	2	2
Gin	1	2	3	0	3
Whisky	—	4	4	0	4
Rum	—	3	3	0	3
	4	96	20	80	100

Two samples of Milk were certified to contain 2 per cent. and 3 per cent. of extraneous water, and another sample 72.8 grains of boric acid per gallon. In one instance the Inspector's retained sample burst, and made it impossible to take further proceedings, and with regard to the other sample a further one was obtained, which proved to be genuine.

One sample of Coffee Mixture was not disclosed on the wrapper, and vendor was warned.

One sample of Gin which was bought informally was certified to be slightly under legal strength, but a notice was exhibited in the bar to the effect that spirits were diluted; and no further proceedings could be taken.

Ten samples of Milk were taken in course of delivery at the Margate Sands Railway Station, which had been sent in by train, and all of the said samples were certified to be genuine.

Report of Administration in connection with the Public Health Milk and Cream Regulations, 1912, for the year ended 31st December, 1913, for the Borough of Margate:—

1.—*Milk, and Cream not sold as Preserved Cream:—*

	(a) Number of Samples examined for the presence of a Pre- servative.	(b) Number in which a Preservative was reported to be pre- sent.
Milk 	40	1
Cream 	1	—

2.—*Cream sold as Preserved Cream:—*

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct:—

(i) Correct statements made	...	4
(ii) Statements incorrect	...	0
Total	...	4

(b) Determinations made of milk fat in cream sold as preserved cream:—

(i) Above 35 per cent.	...	4
(ii) Below 35 per cent.	...	0
Total	...	4

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed ... Nil

(d) Particulars of each case in which the Regulations have not been complied with and action taken ... Nil

3.—*Thickening substances*:—

Any evidence of their addition to cream or to preserved cream:—

Action taken where found ... Nil

4.—*Other observations, if any*:—

One sample of Milk was certified by the Public Analyst to contain 72.8 grains of Boric Acid per gallon.

Inspector's retained sample was broken, and a further sample which was taken proved to be genuine.

SAMPLES OF WATER.

During the year nine samples of water have been taken of the Borough's Water Supply from a hydrant of the water main direct from Wingham, at Shottendane, and sent to the Middlesex Hospital to Dr. Fullerton for bacteriological examination. One sample of Water has also been taken from the above-mentioned hydrant and delivered to Messrs. Harvey and Hawkins, Canterbury, for chemical analysis. The samples were in every case reported to be of high quality.

LEGAL PROCEEDINGS.

It was not necessary to take any Legal Proceedings during the year.

In conclusion, sincere thanks are due to the Chairman (W. H. Hughes, Esq., J.P.) and the Members of the Sanitary Committee for the support they have rendered to the Staff at all times, and also to the two Assistant Inspectors for their hearty co-operation in carrying out the duties of the office.

I am, Gentlemen,

Your obedient servant,

ERNEST RIDSDALE, Assoc. Royal San. Inst.



BOROUGH OF MARGATE.

ANNUAL REPORT
OF THE
METEOROLOGY
FOR THE YEAR 1913.

LONGITUDE $1^{\circ}24''$ E. LATITUDE $51^{\circ}24''$ N.
HEIGHT ABOVE SEA LEVEL 77 FEET.

Climatological Station of the Meteorological Society.

Margate :

Printed by W. J. Parrett, Ltd., "Gazette" Office, 25, Cecil Square,
1914.



*To the Chairman and Members of the
Sanitary Committee.*

GENTLEMEN,

I beg to present herewith the Report of the Weather conditions of the Borough of Margate as duly taken during the year 1913; and for the compilation of which I was responsible. I much regret that owing to failing eyesight I was unable myself to take the observations; they were, however, duly attended to without one single break: those in our absence from Margate by Mr. C. J. Pemble, who was most accurate, and much interested in the work.

The Instruments, fifteen in number, were all read once or more daily, and nearly all of them were placed on the grass lawn attached to the Town Council Offices in Grosvenor Place.

The year was not a favourable one from a weather point of view, there being an absence of both high and low readings, and this in a particularly marked degree. The sunshine was less, the compensation being that there was less rain also. This followed an immediately previous poor season, which was itself separated from another of the same character, by the finest season we have yet probably had. The attendance of visitors during the summer was, however, remarkably high; and the continued opening of the Pavilion throughout the year renders us less dependent on the weather. The general mildness of the winter cannot be made too widely known, and, in spite of the forebodings of some, I look forward to a time not far distant when "Margate Winter Season" will be an accomplished fact. To this happy feature I trust my long series of figures will have contributed not a little.

THE BAROMETER,

familiarly the "glass," looked at by so many at least early in the morning, and sometimes also during the day, both on sea and land, has been read at 9 a.m. and 6 p.m. every day. The former will be found averaged in the general tables at the end, and comes out at 29.968 inches, or very little removed from the normal. The highest reading was on February 12th, 30.658, and this was so generally throughout the land; and the lowest reading was 28.976, this being the only occasion when the mercury fell below 29 during the year. The range, therefore, was 1.682 inches, which was a little less than last year. The Instrument is an exceptionally good one, and has hung in a suitable position at No. 11, Godwin Road; and near it is placed a Richard Barograph, on the papers of which the graphic representation of the rise and fall of the Barometer is of much help to the observer. The 6 p.m. reading has always been the first item on the telegram which has gone nightly to the Government.

THERMOMETERS.—TEMPERATURE.

For the purpose of deducing the Temperature of the Air, as many as 12 Thermometers have been daily read. Four of them—the Dry and Wet Bulbs and the Maximum and Minimum—in the shaded screen; three—the Black and Bright Bulbs and the Grass Minimum—exposed in the open; four going into the ground, and the attached Thermometer to the Barometer. In the, to us, two important months of July and August, the temperature was below the average; a serious and unfortunate factor. In the other ten months the temperature was in each instance above. Thus, notwithstanding the poor mid-summer, the figure for the year (51.5°) was, thanks to the mildness of the winter months, nearly 2 degrees over the normal, and a little higher than in 1912. On only three occasions did the Maximum Thermometer reach 80° , viz., 83° on June 17th, and 80° on May 29th and 30th.

With the Black Bulb Thermometer we only registered 126° , whereas in some previous years over 140° . The coldest night was on the 14th April, when we had 8 degrees of frost. The number of night frosts (44) was unusually low. I will again particularly direct attention to the small difference between the maximum and

minimum readings, and also between those taken each morning at 9 o'clock. In the latter case very seldom do we have to write 10° .

A reference to the tables will show it is as small as 3° one morning with another.

No frosts were noted with any of the four instruments going down into the earth, the lowest readings being 40° in February with the $\frac{1}{2}$ Feet. The 4ft. thermometer was at 56° or above for exactly three months from July 13th; it is generally longer than this.

There is much interest in detailing the daily height of the shade self-registering maximum, which we give for three years, and also the average, the variation being somewhat remarkable.

		20° to 30°	40°	50°	60°	70°	80°	90°
1913	...	5	90	113	134	20	3	
1912	...	1	6	74	142	103	37	3
1911	...	10	102	106	73	58	12	4
Average for...		20	87	122	92	39	5	
12 years								

RAINFALL.

During the year 1913 the fall of rain was a comparatively small one. The total was less than 21 inches, which was nearly 5 inches less than in the previous year, and about 3 inches below our average. The number of rainy days was exceptionally low, only 143, and of these as many as 31 had only the almost unappreciable amount of .01 or .02, so that there were really 110 rainy days, and 250 without rain. Fortunately, or at least so in some respects, in the four summer months there were less than half the number of days with rain to those of the corresponding period in 1912. There was no fall of one inch or above in any one day, the highest measure being 0.95 on September 16th. August was the driest month, October the wettest. In the month of June there were 16 following days without rain, and in November rain was measured on each of 11 successive days.

The amount, though small, was well in excess of that which fell along the neighbouring coast of Essex.

I append, as usual, the rainfall figures taken by Mr. W. R. Hosking at the Margate Corporation Water Works at Wingham. The total is about 7 inches more than ours, but is 7 inches less than last year, a somewhat serious deficiency.

Month.	Total depth.	Greatest Fall in 24 Hours.		Number of Day with .01 or more recorded.
	Inches.	Inches.	Date.	
January ...	4.06	.92	20th	20
February ...	.83	.38	1st	8
March ...	2.86	.49	16th	24
April ...	2.34	.48	3rd	19
May ...	1.08	.24	28th	9
June ...	.85	.34	20th	4
July ...	1.86	.42	2nd	12
August ...	2.40	.79	9th	12
September ...	2.17	.40	18th	11
October ...	4.32	.76	21st	17
November ...	3.40	1.09	21st	17
December ...	1.30	.47	23rd	9
Total ...	27.47			162

SUNSHINE.

The number of hours of bright sunshine traced upon the card placed in the Sunshine Recorder, and which cards were the next day shown on the Board at the entrance to the Jetty, was 1,389. This total was about a score more than in 1912, but was, unfortunately, over 200 less than the average of 23 years. This deficiency was particularly marked during the four summer months, when there was but little more than half the total amount registered during the four summer months of 1911. It is remarkable that the month having the most number of hours was May. There were, however, 294 days on which the sun shone, and on 26 of these it was burning the card for 10 hours or more; while in June, July, and August visitors saw the sun on 90 out of 92 days. We must again refer to the great kindness of T. R. Higgins, Esq., and his staff at the Hydro in allowing the instrument to be seen whenever needed. It should be noticed, in presenting the Sunshine Report of 1,389 hours, that it is 276 above those of South Kensington. The figures show, as worked out by the Government, of an average daily amount of 3.81 hours, or of 4.72

hours on each sunshiny day. The amount of possible bright sunshine was 32 per cent., but it is to be noticed that no place in the Kingdom had anything like 40 per cent.

WIND.

The points from which the wind blew were noted each morning and also in the evening for the Telegram. Those for the morning are given below. There were 194 entries from the three westerly points, and 171 from the others. The south-westerly winds have, as throughout my long experience, been again the highest, and this is so not only in the total, but in most of the months, or, at least, from the west. The various gales were duly entered, some of them being very strong in force.

		N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
1913	.....	16	44	17	33	42	103	46	45	19
1912	... ..	12	22	32	30	49	106	48	39	30

THE SEASON'S WEATHER.

Of the greatest import to nearly everyone in Margate is the state of the weather when visitors come in ever-increasing numbers; and such times are by no means confined to one period alone. At all the Nation's holidays they come, and a few words will tell how we fared in climatic conditions.

At *Easter*, which came early (Good Friday, March 21st), we have recorded for the five days that the daily temperature was 2° above the average; that four of the days were comparatively free from rain, the Saturday being the exception; that the sun shone on each day, giving a total of 27 hours; and the wind was continuous from the South-West.

At *Whitsun*, in the second week in May, the temperature was nearly 3° up; the three days were dry; the Sunday had a specially good sunshine record; and the wind blew from the South on the Saturday, but got round to the North-East on the other two days.

At the August *Bank Holiday*, the 4th, and the two days before, when the numbers are always very great, the conditions were a little less favourable than usual. Temperature 2° down. There was rain on the Monday; only one day of bright sunshine; and the wind North-East on each day.

In last year's report I had occasion to notice the particularly doleful character of the weather in the month of August, and expressed hope it might be some time before we had such another August.

The *August* of 1913 showed a slight recovery, though not a great one. Temperature only 2° down, instead of 4°; hours of sunshine doubled; rainfall much below the average, and more days without rain than with. But we seem less dependent on bad weather than heretofore, the Pavilions, etc., supplying what was so much needed.

At *Christmas*, when to say there are two or three thousand visitors is below the mark, the daily temperature for four days was 41.3° (40° being the worked out average); three of the four days were without rain; there was a fair amount of registered bright sunshine; and there were pleasant westerly breezes throughout the week.

We can hardly say we were ill-favoured at these important times.

DISTRIBUTION.

We have again done all we could to make known the weather figures of our bracing, health-giving, and popular watering place.

We send each week-day morning to the London Railway Stations of our Line a telegram, which is exhibited in their Booking Offices. Again, at 6 o'clock every evening, another telegram goes to the Government Meteorological Office, South Kensington, and this is used in drawing up the all-important weather forecast; and the following day is published, with those from all the larger health resorts, in many newspapers, both morning and evening. The results are sent weekly to the local Press. The Government use the figures in their Daily, Weekly, Monthly, Quarterly, and Annual Statistical information of the weather.

Several local and other guides ask for the corrected figures at the beginning of each year. The Chamber of Commerce publish the weekly results on their excellent Card Programme. A goodly number of enquiries have been at once attended to.

As for many years, the Rainfall Tables have been supplied to
 "British Rainfall."

INSPECTION.

Once each year the Station is visited and inspected by a gentleman from the Government Meteorological Office. Such inspection last year took place on the afternoon of Saturday, May 31st.

In concluding this, the last official Report I shall have the pleasure of drawing up, I beg to thank the Committee and the Council for the kind way in which they have received all such previous Reports; and to express my regret at my severance from the work. I am also much obliged for the kind remarks made in the Council at my resignation, and for the unanimous vote to mark my services by engrossing on Vellum their thanks for the same. I learn with pleasure that in future the Instruments will be placed in a public and prominent position, which, I am sure, will increase general interest in the subject, while the appointment of Dr. Rowan McCombe as the Borough Meteorologist, and Mr. Pemble as the daily observer, will, I am certain, most undoubtedly ensure that this valuable information will be carefully noted and fully made known.

Believe me to be, Gentlemen,

Your obedient servant,

JOHN STOKES, F.R.Met.Soc.

Meteorologist to the Borough of Margate.

Margate, 2nd April, 1914.

EXTREMES AT MARGATE, 1913.

1913.	BAROMETER.		THERMOMETERS.				RAIN MOST.
	Highest.	Lowest.	In Screen.		In the Open.		In a Day. Inches.
			Max.	Min.	Bk. Bulb	Grass	
	INCHES	INCHES	°	°	°	°	
JANUARY ...	30·338	29·010	52·0	29·0	61	—	0·45
FEBRUARY...	30·658	29·600	52·0	31·0	84	26·0	0·23
MARCH ...	30·503	28·976	55·0	33·0	160	31·0	0·33
APRIL	30·122	29·472	70·0	33·0	117	24·0	0·47
MAY	30·308	29·346	80·0	40·0	126	31·2	0·25
JUNE	30·396	29·814	83·0	46·0	124	40·7	0·25
JULY	30·356	29·716	73·0	48·0	—	40·4	0·29
AUGUST ...	30·280	29·772	74·0	46·0	125	38·0	0·21
SEPTEMBER	30·308	29·466	72·4	47·8	121	39·0	0·93
OCTOBER ..	30·412	29·346	65·5	39·0	—	32·0	0·79
NOVEMBER.	30·576	29·146	59·0	39·0	97	30·0	0·71
DECEMBER...	30·576	29·336	55·0	31·0	71	29·0	0·35
	30·658	28·976	83·0	29·0	126	24·0	·93
DATE	Feb. 12	Mar. 19	June 17	Jan. 13	May 29	April 14	Sept. 16

METEOROLOGICAL OBSERVATIONS, MARGATE, 1913.

AVERAGES.

TOTALS.

1913.	BARO- METER.	TEMPERATURES.								GROUND THERMOMETERS (Feet).				RAINFALL.			SUNSHINE.			IN THE OPEN.			
		Dry.	Wet.	☼	Max.	Min.	Range.	Av'ge.	Diff. from 20 years	1/2	1	2	4	Fall.	Days of Rain.	No Rain.	Hours.	Sun- less.	Sun- shiny.	Id. 0 to 10	Black Bulb	On Grass.	Frosts.
JAN. ...	Inches. 29.807	42.3	40.8	3.5	45.8	38.3	7.5	41.1	°	°	°	°	°	2.45	14	17	39	16	15	6.0	50	37.0	10
FEB. ...	30.190	42.5	40.0	2.8	46.0	38.9	7.1	42.5	+2.5	42.7	43.1	44.9	45.9	0.42	5	23	76	9	19	5.7	66	36.0	10
MARCH	29.871	46.7	44.3	2.6	50.0	40.7	9.3	45.4	+3.0	44.8	44.7	45.3	45.8	1.60	18	13	116	4	27	6.3	82	38.0	3
APRIL	29.821	49.8	46.6	3.2	52.8	41.7	11.1	47.3	+2.0	46.9	47.3	47.4	47.3	1.78	16	14	132	2	28	6.4	95	38.0	6
MAY ...	29.938	56.6	52.4	3.6	62.3	47.6	14.7	55.0	+2.6	53.0	53.2	51.6	50.4	1.41	11	20	193	4	27	5.3	103	44.2	1
JUNE...	30.104	60.5	55.7	3.0	66.3	51.6	14.7	59.0	+0.9	58.1	58.4	56.2	54.2	0.61	6	24	190	—	30	4.8	109	46.7	—
JULY ...	30.046	59.5	55.5	1.8	64.4	54.0	10.4	59.2	-3.2	59.4	59.7	55.0	56.2	1.35	10	21	110	2	29	7.3	106	51.0	—
AUG. ...	30.053	62.4	58.0	2.0	66.4	54.5	11.9	60.5	-1.8	59.2	59.3	58.0	56.2	0.55	14	17	159	—	31	6.1	—	49.8	—
SEPT....	29.980	61.0	57.8	2.5	65.4	54.7	10.7	60.0	+1.4	58.2	58.3	57.8	56.8	3.03	10	20	157	5	25	5.0	—	50.4	—
OCT. ...	29.990	55.8	53.7	3.0	60.2	49.8	10.4	55.0	+3.9	54.6	54.8	55.6	55.4	3.64	14	17	121	3	28	5.8	87	41.5	2
NOV. ...	29.879	49.8	48.7	3.8	54.2	44.1	10.1	49.2	+4.0	50.4	50.7	52.4	52.8	2.84	17	13	62	8	22	6.4	75	39.4	3
DEC. ...	30.034	47.1	42.5	3.3	47.5	39.1	8.4	43.3	+2.8	45.8	46.3	48.9	50.0	1.21	8	23	34	18	13	7.3	58	35.7	9
	29.968	52.8	48.7	2.9	56.8	46.2	10.6	51.5	+1.7	51.4	51.6	51.8	51.5	20.89	143	222	1389	71	294	6.1		42.0	44

☼ Differences between the Dry Bulb readings each morning.